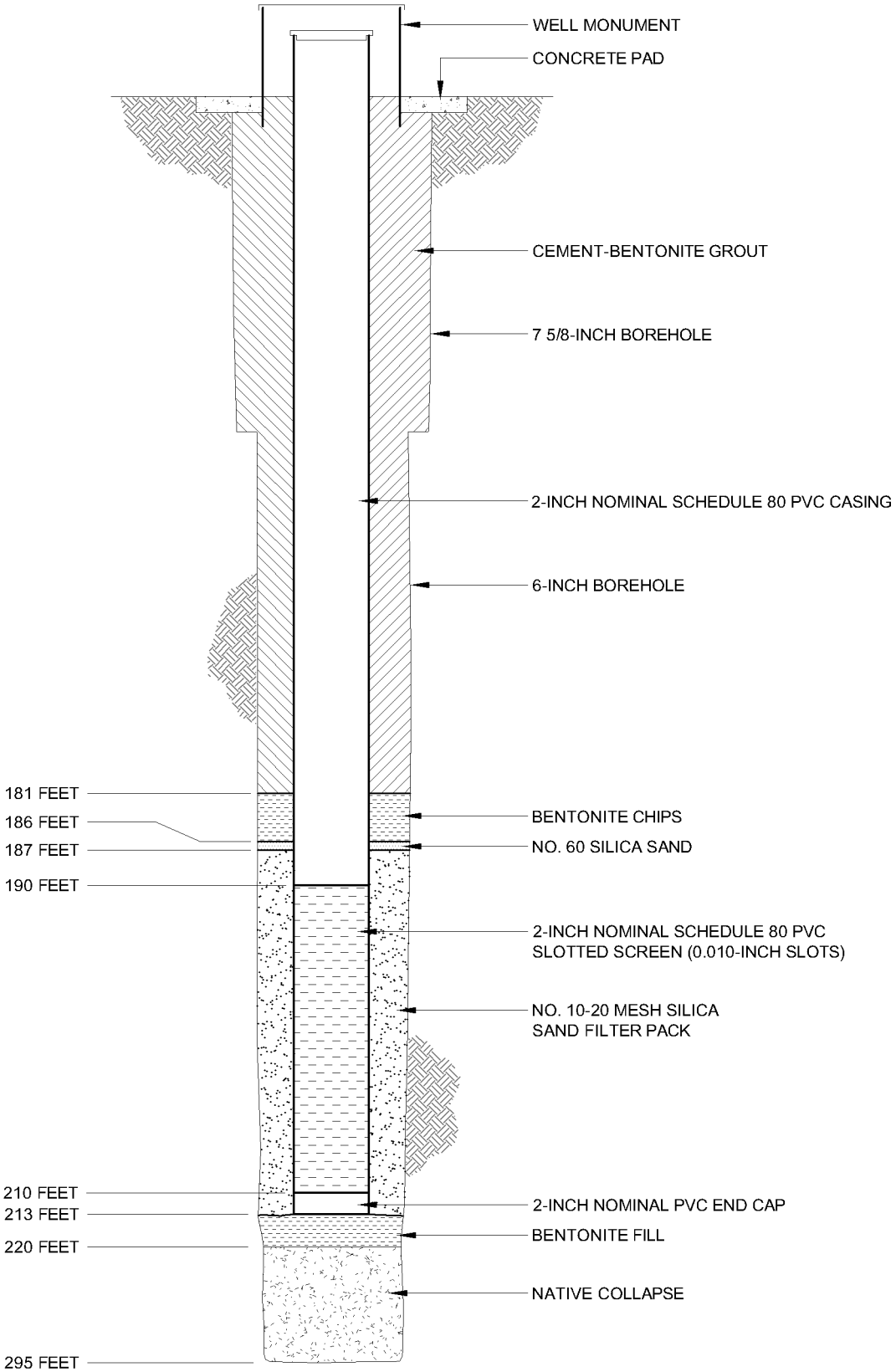

NOT TO SCALE

BROWN AND CALDWELL	Date: March 2008 Atlantic Richfield Company Project: 134557		**Well B/W-16D** **Construction Details**

Brown and Caldwell

Carson City, Nevada

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16 **Sheet** 1 **of** 16

Boring Location: Located 1/4 mile east of Luzier Land and Haul Road junction.	**Northing:** **Easting:**
Drilling Contractor: Boart Longyear **Driller:** R. Salois	**Top of PVC Elevation:** feet amsl **Ground Surface Elevation:** feet amsl
Drilling Equipment: GP24-300RS **Borehole Diameter:** 6-inches	**Date Started:** 10/2/07 **Date Finished:** 10/6/07
Drilling Method: Sonic **Drilling Fluid:** Water	**Completed Depth:** 295 fbgs **Water Depth:** fbmp
Sampling Method: Core Barrel	WELL CONSTRUCTION
Well Seal: Bentonite and Cement	**Type and Diameter of Well Casing:** 2-inch Schedule 80 PVC
Logged By: R. Banda	**Slot Size:** 0.010 inch **Filter Material:** #10-20 Silica Sand

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
		SW-SM	**Well-Graded Sand with Silt and Gravel (0 - 2.5)** Dry, loose, no odor. Primarily medium to fine sand with ~15% gravel to 20 mm and ~15% silt and clay.The gravel is angular to subangular and the sand is angular to subangular to subrounded. The fines are nonplastic, have a light brown color, and have a strong reaction to HCl.					Description of drilled cuttings based on ASTM Method D-2488 (the visual-manual procedure), grain-size determinations and nomenclature based on the Unified Soil Classification System.
		SW-SM	**Well-Graded Sand with Silt (2.5 - 6.5)** Dry, loose, no odor. Primarily medium to fine sand with ~5% gravel to 30 mm and ~10% silt and clay. The gravel is angular to subangular and the sand is subangular to subrounded. The fines are nonplastic, have a light brown color, and do not react to HCl.					Horizontal Survey data is expressed in the Nevada State Plane system, Nevada West zone, in feet. Sharp contacts indicated by solid lines, gradational contacts indicated by dashed line. All depths are below land surface unless stated otherwise.
5		SW-SM	**Well-Graded Sand with Silt and Gravel (6.5 - 10)** Dry, medium dense, no odor. Primarily medium to fine sand with ~15% gravel to 20 mm and ~15% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					WELL DESIGN for B/W-16: PVC Stickup: feet. Cement - Bentonite Grout: 0 - 181 feet Bentonite Chips: 181 - 186 feet No. 60 Silica Sand: 186 - 187 feet #10-20 Silica Sand Filter Pack: 187 - 213 feet 2-inch Nominal Schedule 80 PVC 0.010 Slotted Screen: 190 - 210 feet Native Collapse: 220 - 295 feet Additional Bentonite Fill: 213 - 220 feet
10		SM	**Silty Sand (10 - 12.5)** Dry, medium dense, no odor. Primarily medium to fine sand with ~10% gravel to 15 mm and ~25% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					Number of wells at this location: 1 Screen intervals for paired wells are labeled at the installed depths.
		SW	**Well-Graded Sand with Gravel (12.5 - 19.5)** Dry, dense, no odor. Primarily medium to fine sand with ~30% gravel to 15 mm and ~5% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, have a light brown color, and have a strong reaction to HCl.					

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16 **Sheet** 2 **of** 16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
20		ML	**Sandy Silt (19.5 - 21)** Dry, medium dense, no odor. Primarily silt and clay with ~35% medium to fine sand to 7mm. The sand is angular to subangular. The fines are nonplastic, have an orange brown color, and have a strong reaction to HCl.					
		SW-SM	**Well-Graded Sand with Silt and Gravel (21 - 23)** Dry, medium dense, no odor. Primarily coarse sand with ~30% gravel to 30 mm and ~10% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, have a light brown color, and have a strong reaction to HCl.					
25		SM	**Silty Sand (23 - 33.5)** Dry, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 7 mm and ~20% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, have a light brown color, and have a strong reaction to HCl. Some cobblestone sized pieces of volcanic tuff from 25 - 30					
30		SM	**Silty Sand (33.5 - 36.5)**					

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16 Sheet 3 of 16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
35			Dry, very dense, no odor. Primarily medium to fine sand with ~5% gravel to 30 mm and ~30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					
		ML	**Sandy Silt (36.5 - 38)** Dry, very dense, no odor. Primarily silt and clay with ~30% medium to fine sand and ~5% gravel to 60 mm. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					
40		SM	**Silty Sand with Gravel (38 - 43.5)** Dry, very dense, no odor. Primarily coarse to medium sand with ~15% gravel to 25 mm and ~30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					
45		ML	**Sandy Silt (43.5 - 46)** Dry, very dense, no odor. Primarily silt and clay with ~40% coarse to fine sand and ~10% gravel to 10 mm. The sand and gravel are angular to subangular. The fines are nonplastic, have a light brown color, and have a strong reaction to HCl.					
		ML	**Sandy Silt (46 - 48)** Dry, medium dense, no odor. Primarily silt and clay with ~20% medium to fine sand and ~5% gravel to 10 mm. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					
		ML	**Sandy Silt (48 - 50)** Dry, very dense, no odor. Primarily silt and clay with ~40% coarse to fine sand and ~10% gravel to 10 mm. The sand and gravel are angular to subangular. The fines are nonplastic, have a light brown color, and have a strong reaction to HCl.					
50		SM	**Silty Sand (50 - 55.5)** Dry, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 15 mm and ~30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
55								
		SM	**Silty Sand (55.5 - 57)** Dry, very dense, no odor. Primarily medium to fine sand with ~5% gravel to 10 mm and ~40% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					
		SM	**Silty Sand (57 - 59)** Dry, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 15 mm and ~30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a weak to strong reaction to HCl.					
60		SM	**Silty Sand (59 - 69)** Dry, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 40 mm and ~30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a weak reaction to HCl.					
65								
70		ML	**Sandy Silt (69 - 72)** Dry, dense, no odor. Primarily silt and clay with ~45% fine to medium sand and 5% coarse sand to 7 mm. The sand is angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
		ML	**Sandy Silt (72 - 73.5)** Dry, very dense, no odor. Primarily silt and clay with ~25% medium to fine sand and ~5% gravel to 10 mm. The sand and gravel are angular to subangular. The fines are nonplastic, have a light brown color, and have a strong reaction to HCl.					
		SM	**Silty Sand (73.5 - 80)** Dry to moist, very dense, no odor. Primarily medium to fine sand with ~5% gravel to 75 mm and ~40% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, have a brown color, and have a strong reaction to HCl.					
75								
80		SM	**Silty Sand (80 - 81.5)** Dry, very dense, no odor. Primarily medium to fine sand with ~5% gravel to 10 mm and ~30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					
		SM	**Silty Sand (81.5 - 95)** Dry, very dense, no odor. Primarily medium to fine sand with ~5% gravel to 75 mm and ~40% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					
85								
90								

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
95		SM	**Silty Sand (95 - 103.5)** Dry, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 10 mm and ~30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					
100		SM	**Silty Sand (103.5 - 107)** Dry, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 15 mm and ~40% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, have a light brown color, and have a strong reaction to HCl.					
105		SM	**Silty Sand (107 - 115)** Dry, very dense, no odor. Primarily medium to fine sand with ~5% gravel to 15 mm and ~30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a weak to strong reaction to HCl.					
110								

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16 **Sheet** 7 **of** 16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
115		SM	**Silty Sand (115 - 117.5)** Dry, very dense, no odor. Primarily medium to fine sand with ~5% gravel to ~10 mm and 40% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a weak reaction to HCl.					
120		SM	**Silty Sand with Gravel (117.5 - 128)** Dry, very dense, no odor. Primarily medium to fine sand with ~15% gravel to >100 mm and 25% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and do not react to HCl. Cutting through boulders of tuff and granite.					
125		CL	**Sandy Lean Clay (128 - 130)** Dry, very dense, no odor. Primarily silt and clay with ~20% medium to fine sand with ~5% gravel to 7 mm. The sand and gravel are angular to subangular. The					

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
			fines have low to medium plasticity and toughness, have an orange brown color, and do not react to HCl.					
130		CL	**Sandy Lean Clay (130 - 133)** Dry, very dense, no odor. Primarily silt and clay with ~25% medium to fine sand and ~5% gravel to 7 mm. The sand and gravel are angular to subangular. The fines have low plasticity and toughness, have a light brown color, and have a weak reaction to HCl.					
135		SM	**Silty Sand (133 - 137.5)** Dry, very dense, no odor. Primarily coarse to fine sand with ~10% gravel to 10 mm and ~40% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, have a light brown color, and have a weak reaction to HCl.					
140		CL	**Sandy Lean Clay (137.5 - 154)** Dry, very dense, no odor. Primarily silt and clay with ~30% medium to fine sand and ~5% gravel to 10 mm. The sand and gravel are angular to subangular. The fines are nonplastic to low plasticity and toughness, have a brown color, and have a weak reaction to HCl.					
145								

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16 **Sheet** 9 **of** 16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
150								
155		SM	**Silty Sand (154 - 156)** Dry, very dense, no odor. Primarily coarse to fine sand with ~5% gravel to 15 mm and ~40% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					
		SM	**Silty Sand (156 - 166)** Dry, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 20 mm and ~30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a weak to strong reaction to HCl.					
160								
165		SW	**Well-Graded Sand (166 - 169.5)** Dry to moist, very dense, no odor. Primarily medium to fine sand with ~5% gravel to 10 mm and ~10% silt and clay. The sand and gravel are angular to					

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16 **Sheet** 10 **of** 16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
			subangular. The fines are nonplastic, have a light brown color, and do not react to HCl.					
170		CL	**Sandy Lean Clay (169.5 - 173.5)** Dry, very dense, no odor. Primarily silt and clay with ~25% medium to fine sand and ~10% gravel to 15 mm. The sand and gravel are angular to subangular. The fines are nonplastic to low plasticity and toughness, have a light brown color, and have a weak to strong reaction to HCl.					
175		SW	**Well-Graded Sand (173.5 - 176)** Moist, very dense, no odor. Primarily medium to fine sand with ~5% gravel to 10 mm and ~5% silt and clay. The gravel is angular to subangular and the sand is subangular to subrounded to rounded. The fines are nonplastic, have a brown color, and do not react to HCl.					
		SM	**Silty Sand (176 - 177.5)** Dry to moist, very dense, no odor. Primarily medium to fine sand with ~5% gravel to 10 mm and ~20% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, have a light brown color, and do not react to HCl.					
180		SW	**Well-Graded Sand (177.5 - 184.5)** Moist, very dense, no odor. Primarily medium to fine sand with ~5% gravel to 15 mm and ~10% silt and clay. The gravel is angular to subangular and the sand is subangular to subrounded to rounded. The fines are nonplastic, have a brown color, and do not react to HCl.					
185		SC	**Clayey Sand with Gravel (184.5 - 196)** Moist to saturated, very dense, no odor. Primarily coarse to fine sand with ~20% gravel to 10 mm and ~35% silt and clay.The gravel is angular to subangular and the sand is angular to subangular to subrounded. The fines are nonplastic, and do not react to HCl.					

BORING LOG

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Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16 **Sheet** 11 **of** 16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
190								B/W-16 screened from 190 to 210 feet
195		SC	**Clayey Sand (196 - 205)** Moist to saturated, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 10 mm and ~30% silt and clay.The gravel is angular to subangular and the sand is angular to subangular to subrounded. The fines are nonplastic, and have a weak reaction to HCl.					
200								
205			**Clayey Sand with Gravel (205 - 206)**					

BORING LOG

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Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16 **Sheet** 12 **of** 16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
		SC	Saturated, very dense, no odor. Primarily medium to fine sand with ~15% gravel to 15 mm and ~20% silt and clay.The gravel is angular to subangular and the sand is angular to subangular to subrounded. The fines are nonplastic, and have a weak to strong reaction to HCl.					
		CL	**Sandy Lean Clay (206 - 214.5)** Dry to moist, very dense, no odor. Primarily silt and clay with ~25% medium to fine sand with ~10% gravel to 10 mm.The gravel is angular to subangular and the sand is angular to subangular to subrounded. The fines are nonplastic, have a dark brown color, and have a weak reaction to HCl. Zone is moist from 206 - 207 only.					
210								
215		SM	**Silty Sand (214.5 - 218.5)** Dry, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 10 mm and ~30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					
220		SM	**Silty Sand with Gravel (218.5 - 223.5)** Moist, very dense, no odor. Primarily medium to fine sand with ~20% gravel to 10 mm and ~20% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, have a dark brown color, and have no reaction to a weak reaction to HCl.					
		SM	**Silty Sand (223.5 - 226)** Dry, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 10 mm and ~30% silt and					

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
225			clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a strong reaction to HCl.					
		SM	**Silty Sand (226 - 229)** Dry to moist, very dense, no odor. Primarily coarse to fine sand with gravel to 20 mm. The sand and gravel are angular to subangular. The fines are nonplastic, have a brown color, and have no reaction to a weak reaction to HCl.					
230		SW	**Well-Graded Sand with Gravel (229 - 230.5)** Dry, very dense, no odor. Primarily fine sand (< 1/2 mm) with ~20% gravel to 10 mm and ~15% silt and clay. The sand and gravel are subangular to subrounded. The fines are nonplastic, have a light brown color, and do not react to HCl.					
		SM	**Silty Sand (230.5 - 237)** Dry to moist, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 10 mm and ~25% silt and clay.The gravel is angular to subangular and the sand is angular to subangular to subrounded. The fines are nonplastic, have a brown color, and have no reaction to a weak reaction to HCl. There are 1/2" pieces of granite and tuff at ~234' bgs.					
235		SP	**Poorly Graded Sand (237 - 239)** Moist, very dense, no odor. Primarily medium to fine sand with no gravel and ~10% silt and clay. The sand is subangular to subrounded to rounded. The fines are nonplastic, have a brown color, and do not react to HCl.					
		SM	**Silty Sand (239 - 240)** Dry to moist, very dense, no odor. Primarily medium to fine sand with ~10% gravel to 10 mm and ~25% silt and clay.The gravel is angular to subangular and the sand is angular to subangular to subrounded. The fines are nonplastic, have a brown color, and have no reaction to a weak reaction to HCl.					
240		CL						
		CL	**Sandy Lean Clay (240 - 240.5)** Moist, very dense, no odor. Primarily silt and clay with ~35% medium to fine sand and very little gravel up to 7 mm. The sand and gravel are subangular to subrounded. The fines are nonplastic to low plasticity and toughness, and do not react to HCl.					
		SM	**Sandy Lean Clay with Gravel (240.5 - 241.5)**					

BORING LOG

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Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16 **Sheet** 14 **of** 16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
245			Dry, very dense, no odor. Primarily silt and clay with ~15% coarse sand and ~15% gravel to 30 mm. The sand and gravel are angular to subangular. The fines are nonplastic to low plasticity and toughness, have a dark brown color, and do not react to HCl. There are pieces of granite in the sample.					
			Silty Sand with Gravel (241.5 - 249) Dry, very dense, no odor. Primarily medium to fine sand with ~15% gravel to 30 mm and ~30% silt and clay.The gravel is angular to subangular and the sand is angular to subangular to subrounded. The fines are nonplastic, have a brown color, and have a weak to strong reaction to HCl.					
250		SM	**Silty Sand with Gravel (249 - 251)** Dry to moist, very dense, no odor. Primarily coarse to fine sand with ~20% gravel to 25 mm and ~40% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, and have a weak reaction to HCl.					
			Weathered Granite (251 - 253) Dry, very dense, no odor. Possibly a boulder or bedrock with little clay matrix. Zone hasand white and pink color and has a weak reaction to HCl.					
255		CL	**Sandy Lean Clay (253 - 256)** Moist, soft, no odor. Primarily silt and clay with ~20% medium to fine sand with ~5% gravel. The sand and gravel are angular to subangular. The fines have low plasticity and toughness, have a dark brown color, and have no reaction to a weak reaction to HCl.					
		SM	**Silty Sand (256 - 257)** Dry to moist, soft, no odor. Primarily medium to fine sand with ~5% gravel to ~10 mm and 30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, have a dark brown color, and have a weak reaction to HCl.					
		CL	**Sandy Lean Clay (257 - 259)** Moist, soft, no odor. Primarily silt and clay with~20% medium to fine sand with ~5% gravel. The sand and gravel are angular to subangular. The fines have low plasticity and toughness, have a dark brown color, and have no reaction to a weak reaction to HCl.					
260		SM	**Silty Sand with Gravel (259 - 260.5)** Moist, dense, no odor. Primarily coarse sand with~15% gravel to 15 mm and ~20% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, have a dark brown color, and have a weak reaction to HCl.					
		Tuff						
		SM	**Volcanic Tuff (260.5 - 261)** Dry, dense, no odor. Zone has white color and a weak reaction to HCl.There is a weak reaction to the					

BORING LOG

Project Name: Yerington Second Step Hydrogeologic Framework Assessment **Project Number:** 132025

Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16 **Sheet** 15 **of** 16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
			HCl.					
			Silty Sand with Gravel (261 - 265) Dry, very dense, no odor. Primarily medium to fine sand with ~15% gravel to ~30 mm and 30% silt and clay. The sand and gravel are angular to subangular. The fines are nonplastic, have a brown color, and have a strong reaction to HCl.					
265		CL	**Sandy Lean Clay (265 - 267)** Dry, very dense, no odor. Primarily silt and clay with ~30% medium to fine sand with ~5% gravel to 30 mm. The sand and gravel are angular to subangular. The fines have low plasticity and toughness, have a dark brown color, and do not react to HCl.					
		CL	**Sandy Lean Clay (267 - 279.5)** Dry to moist, very dense, no odor. Primarily silt and clay with ~25% medium to fine sand and ~10% gravel to 50 mm.The gravel is angular to subangular and the sand is angular to subangular to subrounded. The fines are nonplastic, have a dark brown color, and have no reaction to a weak reaction to HCl. Zone has large pieces of weathered granite throughout.					
270								
275								
280		Tuff	**Volcanic Tuff (279.5 - 280.5)** Dry, dense, no odor. Zone has white color and a weak reaction to HCl.There is a weak reaction to the HCl.					
		SM	**Silty Sand with Gravel (280.5 - 295)** Dry, very dense, no odor. Primarily medium to fine					

BORING LOG

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Soil Boring: ☐ Monitoring Well: ☒ Piezometer: ☐ **Boring/Well Number:** B/W-16 **Sheet** 16 **of** 16

Depth (ft)	Elevation (ft)	USCS Group Symbol	Material Description	Sample Name	Sample Location	Lithology	Well Construction	Remarks
285			sand with ~15% gravel to 30 mm and ~30% silt and clay.The gravel is angular to subangular and the sand is angular to subangular to subrounded. The fines are nonplastic, have a light brown color, and have a weak to strong reaction to HCl. Zone has large pieces (up to 3-inches) of tuff.					
290								
295			Bottom of Borehole at 295 feet below ground surface.					